



Your Power House

VP ELECTRONIQUE
DC Electronic Load

Doc. IC-0030

34000C Series Compact High Power DC Electronic Load

150V
600V
1000V

6kW~
24kW

12
Models
Type



Features

- Maximum power up to 192KW
- Maximum up to 8 units master / slave parallel control
- 5 digit V/A/W Meter.
- High-speed measurement and communication transmission.
- Large LCD Display \ setting values can be adjusted by rotary knob or push button.
- Voltage \ Current and Watt value can be displayed simultaneously.
- Capable for Power Factor Correction (PFC) Test. (for 600V,1000V models)
- OCP \ OPP test function automatically.
- Power ON status can be set.
- CC, CR, CV, CP, Dynamic and Short operation mode.
- **SHORT time setting.**
- Protections against I,W,°C and over-voltage alert.
- **Voltage meter display the polarity positive ("+") or negative ("-") is selectable.**
- Optional Interface : GPIB \ RS232 \ USB \ LAN.

Descriptions

- 34000A Series has its own control and display panel, CC / CR / CV / CP / Dynamic modes, 150 sets Store / Recall memory which provides load set-up more efficiently, also can be remote controlled via GPIB \ RS232 \ USB and LAN interface.
- SHORT time setting and SHORT_VH, SHORT_VL setting function, also can measure Short Voltage and Current.
- Dynamic can be simulated under CC, CP mode. The current Rise / Fall slew rate can be adjusted individually and there is an external signal input for a Arbitrary Waveform to simulate load current.
- **Single key for OCP \ OPP test function will be more efficiency and accuracy on OCP \ OPP testing.**
- Programmable Load ON/OFF voltage, GO/NG meter check, Voltage meter display "+" or "-" is selectable and 150 sets Store/Recall larger memory is much advance feature for each different application.
- 150 sets test parameter and status storage function, user can recall the storage memory real time in accordance with the auto sequence requirement.
- Maximum Voltage up to 1000V provide an idea testing solution for Power Factor Correction test.
- **Master / Slave control units maximum are up to 1 MASTER, 7 SLAVES.**

Applications

- Voltage / Current source
- SMPS transient response
- CV/Current limit testing and battery emulation
- Battery charger
- Battery discharge
- R&D Quality Control
- ATE system
- Production testing



Specifications

| MODEL | 34106C | | 34112C | | 34118C | | 34124C | |
|--|--------------------------------------|---------------|-----------------|----------------|-----------------|-----------------|----------------|----------------|
| Power | 6KW | | 12KW | | 18KW | | 24KW | |
| Current | 0 ~ 60A | 0 ~ 600A | 0 ~ 120A | 0 ~ 1200A | 0 ~ 180A | 0 ~ 1800A | 0 ~ 200A | 0 ~ 2000A |
| Voltage | 0 ~ 150V | | | | | | | |
| Min. Operating Voltage | 0.7V @ 600A | | 0.7V @ 1200A | | 0.7V @ 1800A | | 0.62V @ 2000A | |
| Protections | | | | | | | | |
| Over Power Protection (OPP) | 105% | | | | | | | |
| Over Current Protection (OCP) | 104% | | | | | | | |
| Over Voltage Protection (OVP) | 105% | | | | | | | |
| Over Temp Protection (OTP) | Yes | | | | | | | |
| Constant Current Mode | | | | | | | | |
| Range*1 | 60A | 600A | 120A | 1200A | 180A | 1800A | 200A | 2000A |
| Resolution | 0.96mA | 9.6mA | 1.92mA | 19.2mA | 2.88mA | 28.8mA | 3.2mA | 32mA |
| Accuracy | ± (0.1% of Setting + 0.2% of Range) | | | | | | | |
| Constant Resistance Mode | | | | | | | | |
| Range | 15000Ω~0.25Ω | 0.25Ω~0.0012Ω | 7500Ω~0.125Ω | 0.125Ω~0.0005Ω | 5000Ω~0.0833Ω | 0.0833Ω~0.0004Ω | 4500Ω~0.075Ω | 0.075Ω~0.0004Ω |
| Resolution | 66.66μS | 4.167μΩ | 8.8μS | 2.08μΩ | 200μS | 1.38833μΩ | 222μS | 1.25μΩ |
| Accuracy | ±0.2% of (Setting + Range) | | | | | | | |
| Constant Voltage Mode | | | | | | | | |
| Range | 150V | | | | | | | |
| Resolution | 2.5mV | | | | | | | |
| Accuracy | ± 0.05% of (Setting + Range) | | | | | | | |
| Constant Power Mode | | | | | | | | |
| Range | 600W | 6000W | 1200W | 12000W | 1800W | 18000W | 2400W | 24000W |
| Resolution | 9.6mW | 96mW | 19.2mW | 192mW | 28.8mW | 288mW | 38.4mW | 384mW |
| Accuracy | ± 0.5% of (Setting + Range) | | | | | | | |
| Constant Voltage Mode + Constant Current Mode | | | | | | | | |
| Range | 150V | 600A | 150V | 1200A | 150V | 1800A | 150V | 2000A |
| Resolution | 2.5mV | 9.6mA | 2.5mV | 19.2mA | 2.5mV | 28.8mA | 2.5mV | 32mA |
| Accuracy | ± 1% of (Setting + Range) | | | | | | | |
| Constant Voltage Mode + Constant Power Mode | | | | | | | | |
| Range | 150V | 6000W | 150V | 12000W | 150V | 18000W | 150V | 24000W |
| Resolution | 2.5mV | 96mW | 2.5mV | 192mW | 2.5mV | 288mW | 2.5mV | 384mW |
| Accuracy | ± 1.0% of (Setting + Range) | | | | | | | |
| MPPT Mode | | | | | | | | |
| Algorithm | P&O | | | | | | | |
| Load mode | CV | | | | | | | |
| P&O interval | 10ms~2000ms ; resolution 1ms | | | | | | | |
| Dynamic Mode | | | | | | | | |
| Timing | | | | | | | | |
| Thigh & Tlow | 0.050~9.999 / 99.99 / 999.9 / 9999ms | | | | | | | |
| Resolution | 0.001 / 0.01 / 0.1 / 1ms | | | | | | | |
| Accuracy | 1μs / 10μs / 100μs / 1ms + 50ppm | | | | | | | |
| Slew Rate | 0.0144A~0.9A/μs | 0.144A~9A/μs | 0.0288A~1.8A/μs | 0.288A~18A/μs | 0.0432A~2.7A/μs | 0.432A~27A/μs | 0.048A~3.0A/μs | 0.48A~30A/μs |
| Resolution | 0.0036A/μs | 0.036A/μs | 0.0072A/μs | 0.072A/μs | 0.0108A/μs | 0.108A/μs | 0.012A/μs | 0.12A/μs |
| Min. Rise Time | 66.7μs(typical) | | | | | | | |
| Current | | | | | | | | |
| Range | 0~60A | 60~600A | 0~120A | 120~1200A | 0~180A | 180~1800A | 0~200A | 200~2000A |
| Resolution | 0.96mA | 9.6mA | 1.92mA | 19.2mA | 2.88mA | 28.8mA | 3.2mA | 32mA |
| Measurement | | | | | | | | |
| Voltage Read Back | | | | | | | | |
| Range (5 Digital) | 0~15V | 15~150V | 0~15V | 15~150V | 0~15V | 15~150V | 0~15V | 15~150V |
| Resolution | 2.5mV | 2.5mV | 0.25mV | 2.5mV | 0.25mV | 2.5mV | 0.25mV | 2.5mV |
| Accuracy | ±0.025% of (Reading + Range) | | | | | | | |
| Current Read Back | | | | | | | | |
| Range (5 Digital) | 0~60A | 60~600A | 0~120A | 120~1200A | 0~180A | 180~1800A | 0~200A | 200~2000A |
| Resolution | 0.96mA | 9.6mA | 1.92mA | 19.2mA | 2.88mA | 28.8mA | 3.2mA | 32mA |
| Accuracy | ±0.1% of (Reading + Range) | | | | | | | |
| Power Read Back | | | | | | | | |
| Range (5 Digital) | 0~600W | 6000W | 1200W | 12000W | 1800W | 18000W | 2400W | 24000W |
| Resolution | 0.1W | 1W | 0.1W | 1W | 0.1W | 1W | 0.1W | 1W |
| Accuracy | ±0.125% of (Reading + Range) | | | | | | | |
| General | | | | | | | | |
| Typical Short Resistance | 0.00116Ω | | 0.000583Ω | | 0.000388Ω | | 0.00031Ω | |
| Maximum Short Current | 600A | | 1200A | | 1800A | | 2000A | |
| Load ON Voltage | 0.25 ~ 62.5V | | | | | | | |
| Load OFF Voltage | 0 ~ 62.5V | | | | | | | |
| Power Consumption | 600Wmax | | 1000Wmax | | 1450Wmax | | 1900Wmax | |
| Operating Temperature*2 | 0~40°C | | | | | | | |
| Dimension (HxWxD) | 446x444x763mm | | 572x444x763mm | | 761x444x763mm | | 884x444x763mm | |
| HxWxD (Not included wheels) | 342x444x763mm | | 468x444x763mm | | 657x444x763mm | | 780x444x763mm | |
| Weight | 62 kg | | 92 kg | | 124 kg | | 155 kg | |
| Safety & EMC | CE | | | | | | | |

Cooling : Advanced Fan Cooled

Input AC Power : ① Load-20KW (include) : 100~230 Vac ±10% , 50/60Hz

② Load-25KW above (include) : 200~230 Vac ±10% , 50/60Hz

Note*1 : The range is automatically or forcing to range II only in CC Mode

Note*2 : Operating temperature range is 0~40°C , all specifications apply for 25°C±5°C

Order Information

Optional interface :

- ① GPIB Card
- ② RS232 Card
- ③ USB Card
- ④ LAN Card



34106C 150V · 600A · 6KW



34112C 150V · 1200A · 12KW



34118C 150V · 1800A · 18KW



34124C 150V · 2000A · 24KW



Specifications

| MODEL | 34206C | | 34212C | | 34218C | | 34224C | |
|--|--------------------------------------|--------------|----------------|---------------|----------------|--------------|----------------|-----------------|
| Power | 6KW | | 12KW | | 18KW | | 24KW | |
| Current | 0 ~ 16A | 0 ~ 160A | 0 ~ 32A | 0 ~ 320A | 0 ~ 48A | 0 ~ 480A | 0 ~ 64A | 0 ~ 640A |
| Voltage | 0 ~ 600V | | | | | | | |
| Min. Operating Voltage | 22V @ 160A | | 22V @ 320A | | 22V @ 480A | | 22V @ 640A | |
| Protections | | | | | | | | |
| Over Power Protection (OPP) | 105% | | | | | | | |
| Over Current Protection (OCP) | 104% | | | | | | | |
| Over Voltage Protection (OVP) | 105% | | | | | | | |
| Over Temp Protection (OTP) | Yes | | | | | | | |
| Constant Current Mode | | | | | | | | |
| Range ^{*1} | 16A | 160A | 32A | 320A | 48A | 480A | 64A | 640A |
| Resolution | 0.256mA | 2.56mA | 0.512mA | 5.12mA | 0.768mA | 7.68mA | 1.024mA | 10.24mA |
| Accuracy | ± (0.1% of Setting + 0.2% of Range) | | | | | | | |
| Constant Resistance Mode | | | | | | | | |
| Range | 22500Ω~3.75Ω | 3.75Ω~0.126Ω | 11250Ω~1.875Ω | 1.875Ω~0.063Ω | 7500Ω~1.25Ω | 1.25Ω~0.042Ω | 5625Ω~0.9375Ω | 0.9375Ω~0.0315Ω |
| Resolution | 4.4μS | 0.063mΩ | 8.8μS | 0.0315mΩ | 13.3μS | 0.021mΩ | 17.7μS | 0.01575mΩ |
| Accuracy | ±0.2% of (Setting + Range) | | | | | | | |
| Constant Voltage Mode | | | | | | | | |
| Range | 600V | | | | | | | |
| Resolution | 10mV | | | | | | | |
| Accuracy | ± 0.05% of (Setting + Range) | | | | | | | |
| Constant Power Mode | | | | | | | | |
| Range | 600W | 6000W | 1200W | 12000W | 1800W | 18000W | 2400W | 24000W |
| Resolution | 9.6mW | 96mW | 19.2mW | 192mW | 28.8mW | 288mW | 38.4mW | 384mW |
| Accuracy | ± 0.5% of (Setting + Range) | | | | | | | |
| Constant Voltage Mode + Constant Current Mode | | | | | | | | |
| Range | 600V | 160A | 600V | 320A | 600V | 480A | 600V | 640A |
| Resolution | 10mV | 2.56mA | 10mV | 5.12mA | 10mV | 7.68mA | 10mV | 10.24mA |
| Accuracy | ± 1% of (Setting + Range) | | | | | | | |
| Constant Voltage Mode + Constant Power Mode | | | | | | | | |
| Range | 600V | 6000W | 600V | 12000W | 600V | 18000W | 600V | 24000W |
| Resolution | 10mV | 96mW | 10mV | 192mW | 10mV | 288mW | 10mV | 384mW |
| Accuracy | ± 1.0% of (Setting + Range) | | | | | | | |
| MPPT Mode | | | | | | | | |
| Algorithm | P&O | | | | | | | |
| Load mode | CV | | | | | | | |
| P&O interval | 10ms~2000ms ; resolution 1ms | | | | | | | |
| Dynamic Mode | | | | | | | | |
| Timing | | | | | | | | |
| Thigh & Tlow | 0.050~9.999 / 99.99 / 999.9 / 9999ms | | | | | | | |
| Resolution | 0.001 / 0.01 / 0.1 / 1ms | | | | | | | |
| Accuracy | 1μs / 10μs / 100μs / 1ms + 50ppm | | | | | | | |
| Slew Rate | 12.8mA~800A/μs | 128mA~8A/μs | 25.6mA~1.6A/μs | 256mA~16A/μs | 38.4mA~2.4A/μs | 384mA~24A/μs | 51.2mA~3.2A/μs | 512mA~32A/μs |
| Resolution | 3.2mA/μs | 32mA/μs | 6.4mA/μs | 64mA/μs | 9.6mA/μs | 96mA/μs | 12.8mA/μs | 128mA/μs |
| Min. Rise Time | 20μs(typical) | | | | | | | |
| Current | | | | | | | | |
| Range | 0~16A | 16~160A | 0~32A | 32~320A | 0~48A | 48~480A | 0~64A | 64~640A |
| Resolution | 0.256mA | 2.56mA | 0.534mA | 5.34mA | 0.768mA | 7.68mA | 1.024mA | 10.24mA |
| Measurement | | | | | | | | |
| Voltage Read Back | | | | | | | | |
| Range (5 Digital) | 0~60V | 60~600V | 0~60V | 60~600V | 0~60V | 60~600V | 0~60V | 60~600V |
| Resolution | 1mV | 10mV | 1mV | 10mV | 1mV | 10mV | 1mV | 10mV |
| Accuracy | ±0.025% of (Reading + Range) | | | | | | | |
| Current Read Back | | | | | | | | |
| Range (5 Digital) | 0~16A | 16~160A | 0~32A | 32~320A | 0~48A | 48~480A | 0~64A | 64~640A |
| Resolution | 0.256mA | 2.56mA | 0.512mA | 5.12mA | 0.768mA | 7.68mA | 1.024mA | 10.24mA |
| Accuracy | ±0.1% of (Reading + Range) | | | | | | | |
| Power Read Back | | | | | | | | |
| Range (5 Digital) | 600W | 6000W | 1200W | 12000W | 1800W | 18000W | 2400W | 24000W |
| Resolution | 0.1W | 1W | 0.1W | 1W | 0.1W | 1W | 0.1W | 1W |
| Accuracy | ±0.125% of (Reading + Range) | | | | | | | |
| General | | | | | | | | |
| Typical Short Resistance | 0.125Ω | | 0.0625Ω | | 0.04166Ω | | 0.03125Ω | |
| Maximum Short Current | 160A | | 320A | | 480A | | 640A | |
| Load ON Voltage | 0.4 ~ 100V | | | | | | | |
| Load OFF Voltage | 0 ~ 100V | | | | | | | |
| Power Consumption | 600Wmax | | 1000Wmax | | 1450Wmax | | 1900Wmax | |
| Operating Temperature ^{*2} | 0~40°C | | | | | | | |
| Dimension (HxWxD) | 446x444x763mm | | 572x444x763mm | | 761x444x763mm | | 884x444x763mm | |
| HxWxD (Not included wheels) | 342x444x763mm | | 468x444x763mm | | 657x444x763mm | | 780x444x763mm | |
| Weight | 62 kg | | 92 kg | | 124 kg | | 155 kg | |
| Safety & EMC | CE | | | | | | | |

Cooling : Advanced Fan Cooled

Input AC Power : ① Load-20KW (include) : 100~230 Vac ±10% , 50/60Hz

② Load-25KW above (include) : 200~230 Vac ±10% , 50/60Hz

Note*1 : The range is automatically or forcing to range II only in CC Mode

Note*2 : Operating temperature range is 0~40°C , all specifications apply for 25°C±5°C

Order Information

Optional interface :

- ① GPIB Card
- ② RS232 Card
- ③ USB Card
- ④ LAN Card



34206C 600V , 160A , 6KW



34212C 600V , 320A , 12KW



34218C 600V , 480A , 18KW



34224C 600V , 640A , 24KW



Specifications

| MODEL | 34306C | | 34312C | | 34318C | | 34324C | |
|--|--------------------------------------|---------------|----------------|-------------|-----------------|----------------|---------------|--------------|
| Power | 6KW | | 12KW | | 18KW | | 24KW | |
| Current | 0 ~ 5A | 0 ~ 50A | 0 ~ 10A | 0 ~ 100A | 0 ~ 15A | 0 ~ 150A | 0 ~ 20A | 0 ~ 200A |
| Voltage | 0 ~ 1000V | | | | | | | |
| Min. Operating Voltage | 40V @ 50A | | 40V @ 100A | | 40V @ 150A | | 40V @ 200A | |
| Protections | | | | | | | | |
| Over Power Protection (OPP) | 105% | | | | | | | |
| Over Current Protection (OCP) | 104% | | | | | | | |
| Over Voltage Protection (OVP) | 104% | | | | | | | |
| Over Temp Protection (OTP) | Yes | | | | | | | |
| Constant Current Mode | | | | | | | | |
| Range ¹ | 5A | 50A | 10A | 100A | 15A | 150A | 20A | 200A |
| Resolution | 0.08mA | 0.8mA | 0.16mA | 1.6mA | 0.24mA | 2.4mA | 0.32mA | 3.2mA |
| Accuracy | ± (0.1% of Setting + 0.2% of Range) | | | | | | | |
| Constant Resistance Mode | | | | | | | | |
| Range | 24000Ω~20Ω | 20Ω~0.8016Ω | 12000Ω~10Ω | 10Ω~0.4008Ω | 8000Ω~6.666Ω | 6.666Ω~0.2688Ω | 6000Ω~5Ω | 5Ω~0.2016Ω |
| Resolution | 0.833μS | 0.344mΩ | 1.666μS | 0.167mΩ | 2.4μS | 0.112mΩ | 3.33μS | 0.084mΩ |
| Accuracy | ±0.2% of (Setting + Range) | | | | | | | |
| Constant Voltage Mode | | | | | | | | |
| Range | 10 ~ 1000V | | | | | | | |
| Resolution | 16mV | | | | | | | |
| Accuracy | ± 0.05% of (Setting + Range) | | | | | | | |
| Constant Power Mode | | | | | | | | |
| Range | 600W | 6000W | 1200W | 12000W | 1800W | 18000W | 2400W | 24000W |
| Resolution | 9.6mW | 96mW | 19.2mW | 192mW | 28.8mW | 288mW | 38.4mW | 384mW |
| Accuracy | ± 0.5% of (Setting + Range) | | | | | | | |
| Constant Voltage Mode + Constant Current Mode | | | | | | | | |
| Range | 1000V | 50A | 1000V | 100A | 1000V | 150A | 1000V | 200A |
| Resolution | 16mV | 0.8mA | 16mV | 1.6mA | 16mV | 2.4mA | 16mV | 3.2mA |
| Accuracy | ± 1% of (Setting + Range) | | | | | | | |
| Constant Voltage Mode + Constant Power Mode | | | | | | | | |
| Range | 1000V | 6000W | 1000V | 12000W | 1000V | 18000W | 1000V | 24000W |
| Resolution | 16mV | 96mW | 16mV | 192mW | 16mV | 288mW | 16mV | 384mW |
| Accuracy | ± 1.0% of (Setting + Range) | | | | | | | |
| MPPT Mode | | | | | | | | |
| Algorithm | P&O | | | | | | | |
| Load mode | CV | | | | | | | |
| P&O interval | 10ms~2000ms ; resolution 1ms | | | | | | | |
| Dynamic Mode | | | | | | | | |
| Timing | | | | | | | | |
| Thigh & Tlow | 0.050~9.999 / 99.99 / 999.9 / 9999ms | | | | | | | |
| Resolution | 0.001 / 0.01 / 0.1 / 1ms | | | | | | | |
| Accuracy | 1μs / 10μs / 100μs / 1ms + 50ppm | | | | | | | |
| Slew Rate | 0.004A~0.25A/μs | 0.04A~2.5A/μs | 0.008A~0.5A/μs | 0.08A~5A/μs | 0.012A~0.75A/μs | 0.12A~7.5A/μs | 0.016A~1A/μs | 0.16A~10A/μs |
| Resolution | 0.001A/μs | 0.01A/μs | 0.002A/μs | 0.02A/μs | 0.003A/μs | 0.03A/μs | 0.004A/μs | 0.04A/μs |
| Min. Rise Time | 20μs(typical) | | | | | | | |
| Current | | | | | | | | |
| Range | 0~5A | 5~50A | 0~10A | 10~100A | 0~15A | 15~150A | 0~20A | 20~200A |
| Resolution | 0.08mA | 0.8mA | 0.16mA | 1.6mA | 0.24mA | 2.4mA | 0.32mA | 3.2mA |
| Measurement | | | | | | | | |
| Voltage Read Back | | | | | | | | |
| Range (5 Digital) | 0~100V | 100~1000V | 0~100V | 100~1000V | 0~100V | 100~1000V | 0~100V | 100~1000V |
| Resolution | 1.6mV | 16mV | 1.6mV | 16mV | 1.6mV | 16mV | 1.6mV | 16mV |
| Accuracy | ±0.025% of (Reading + Range) | | | | | | | |
| Current Read Back | | | | | | | | |
| Range (5 Digital) | 0~5A | 5~50A | 0~10A | 10~100A | 0~15A | 15~150A | 0~20A | 20~200A |
| Resolution | 0.08mA | 0.8mA | 0.16mA | 1.6mA | 0.24mA | 2.4mA | 0.32mA | 3.2mA |
| Accuracy | ±0.1% of (Reading + Range) | | | | | | | |
| Power Read Back | | | | | | | | |
| Range (5 Digital) | 600W | 6000W | 1200W | 12000W | 1800W | 18000W | 2400W | 24000W |
| Resolution | 0.1W | 1W | 0.1W | 1W | 0.1W | 1W | 0.1W | 1W |
| Accuracy | ±0.125% of (Reading + Range) | | | | | | | |
| General | | | | | | | | |
| Typical Short Resistance | 0.8Ω | | 0.5Ω | | 0.266Ω | | 0.2Ω | |
| Maximum Short Current | 50A | | 100A | | 150A | | 200A | |
| Load ON Voltage | 0.8 ~ 200V | | | | | | | |
| Load OFF Voltage | 0 ~ 200V | | | | | | | |
| Power Consumption | 600Wmax | | 1000Wmax | | 1450Wmax | | 1900Wmax | |
| Operating Temperature ² | 0~40°C | | | | | | | |
| Dimension (HxWxD) | 446x444x763mm | | 572x444x763mm | | 761x444x763mm | | 884x444x763mm | |
| HxWxD (Not included wheels) | 342x444x763mm | | 468x444x763mm | | 657x444x763mm | | 780x444x763mm | |
| Weight | 62 kg | | 92 kg | | 124 kg | | 155 kg | |
| Safety & EMC | CE | | | | | | | |

Cooling : Advanced Fan Cooled

Input AC Power : ① Load-20KW (include) : 100~230 Vac ±10% , 50/60Hz

② Load-25KW above (include) : 200~230 Vac ±10% , 50/60Hz

Note*1 : The range is automatically or forcing to range II only in CC Mode

Note*2 : Operating temperature range is 0~40°C , all specifications apply for 25°C±5°C

Order Information

Optional interface :

- ① GPIB Card
- ② RS232 Card
- ③ USB Card
- ④ LAN Card



34306C 1000V · 50A · 6KW



34312C 1000V · 100A · 12KW



34318C 1000V · 150A · 18KW



34324C 1000V · 200A · 24KW